

# Work Processes Schedule

## WELDER, COMBINATION

**RAPIDS: 0622M**

O\*NET/SOC: 51-4121.06

REVISION DATE: 12/2014

Welds metal components to fabricate or repair products, such as machine parts, motors, generators, plating, and various structural fixtures, according to specifications, layouts, blueprints, or work orders. Welds using multiple processes including Oxy-Acetylene, Electric Arc, Gas Metal and Gas Tungsten Arc, Brazing, and Soldering. Also conducts sheet metal fabrication and repair.

### Applicable Ratings/MOS

USMC MOS 1316, 2161, 6043, 6092

USCG AMT, DC

USN AM, AS, AWF, HT, SW

### Related Instruction

Any trade related schools/courses totaling 432 hours. Navy rates HT AM AWF personnel must have completed an Advanced Welding school/course in addition to their "A" school AWF must have completed AM school AS rating must have NEC 7222.

### Additional Requirement

Completion of a Welding school/course in additional to "A" school training.

Total Hours: **6000**

Skill	Description	Hours
<b>A</b>	<b>USE AND MAINTAIN TOOLS (HAND AND POWER) AND WELDING EQUIPMENT</b>  Drills, grinders, cutting tools. Portable welding machines. Oxy-fuel welding and cutting equipment. Plasma arc cutting equipment	500
<b>B</b>	<b>METAL IDENTIFICATION</b>  Appearance, spark and chemical tests. SAE numbering system.	200
<b>C</b>	<b>WELDING-OXYACETYLENE</b>  String beads with and without rod, lap joint vertically and overhead. Butt joint vertically, horizontally and overhead. Tee joint vertically and horizontally; overhead position corner joint. Heat-treat metals and cut metal.	300
<b>D</b>	<b>BRAZING</b>  Braze similar and dissimilar metals in horizontal and flat positions. Braze cast iron in the flat, horizontal and vertical positions.	100
<b>E</b>	<b>SOLDER</b>  Silver and Soft.	100
	<b>WELDING-ELECTRIC ARC</b>	

<b>F</b>	Surface build-up (pad weld), string and J. Weave beads, flat and vertical positions. Butt weld low carbon steel in the flat, horizontal, vertical, and overhead positions. Butt weld stainless steel in the flat position. Butt weld armor plate in the flat and horizontal. Fillet weld low carbon steels in the horizontal, vertical and overhead positions. Fillet weld stainless steel in the horizontal position. Fillet weld aluminum in the horizontal. Position and pipe weld in the horizontal position. Shielded Metal Arc Welding - Electrode Identification	1500
<b>G</b>	<b>GAS METAL ARC WELDING (GMAW) / GAS TUNGSTEN ARC WELDING (GTAW)</b>  Butt weld aluminum and stainless steel in the flat and vertical position with (GTAW). Butt weld aluminum and stainless steel in the flat, horizontal, vertical and overhead positions with (GMAW). Fillet weld aluminum and stainless steel in the flat, horizontal, vertical and overhead position with (GMAW).	2000
<b>H</b>	<b>SAFETY</b>  Safety Precautions First Aid Hearing Conversation Hazardous Material Control And Management Program Fundamentals Respiratory Protection Program Sight Conversation Program	500
<b>I</b>	<b>MATH</b>	100
<b>J</b>	<b>SHEETMETAL TOOLS AND EQUIPMENT</b>  Use and maintain drills, files, unishears, grinders, combination squares, brake fingers calipers (outside and inside), drafting, set slip roll forming machine, creasing horn, bear horn, blow horn, hollow mandrel, metal shear, riveting and measuring instruments.	100
<b>K</b>	<b>SHOP FUNDAMENTALS</b>  Read blueprints, shop drawings, layout work piece, use measuring devices. Quality Assurance Program Fundamentals General Administration (log, record and file maintenance records) Technical Administration (maintain publications and manuals) Logistics (order, inventory materials)	500
<b>L</b>	<b>SHEET METAL PROJECTS</b>  Layout objects, fabricate objects, shaping, riveting and forming using edges, notches and seams.	100